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Liquid Crystals and Applications in Optics

**Milada Glogarova
Peter Palffy-Muhoray
Martin Copic**
Editors

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Introduction

This SPIE volume includes the contributions presented at the conference on Liquid Crystals and their Applications in Optics held within the SPIE International Congress on Optics and Optoelectronics (ICOO), which took place in Prague in April 2007. The previous ICOO organized in Central and Eastern Europe was located in Warsaw in 2005.

The conference covered a vast range of topics, namely photonics, holography, gratings, lasing, nonlinear effects, wave guiding, negative index liquid crystalline materials, photonics of self-assembly colloids, membranes, nanocomposites, and liquid crystal fibers.

The best specialists were invited to present 14 keynote lectures in the mentioned fields; in addition, 18 selected oral contributions and 22 posters were presented. Most of the manuscripts of presented contributions are published in this volume, giving an adequate overview of current research on optical applications of liquid crystals.

In their free time, participants could enjoy historical monuments of Prague and its thousand-year history. Prague is also interesting because of its rich history in physics. The outstanding personalities who stayed in Prague are represented in historical succession: Johannes Kepler, Christian Doppler, Ernst Mach, and Albert Einstein. For the liquid crystal community it is surely interesting that about 120 years ago the liquid crystalline properties were discovered in Prague by Fridrich Reinitzer, a professor at the Imperial Institute for Plant Physiology at the German University in Prague. He published his results in *Monatshefte für Chemie*, Vol. 9, 421-441, 1888.

Milada Glogarova



The house of the former German Technical University situated in Husova street, Prague Old Town, where F. Reinitzer discovered liquid crystalline properties on cholesteryl acetate.